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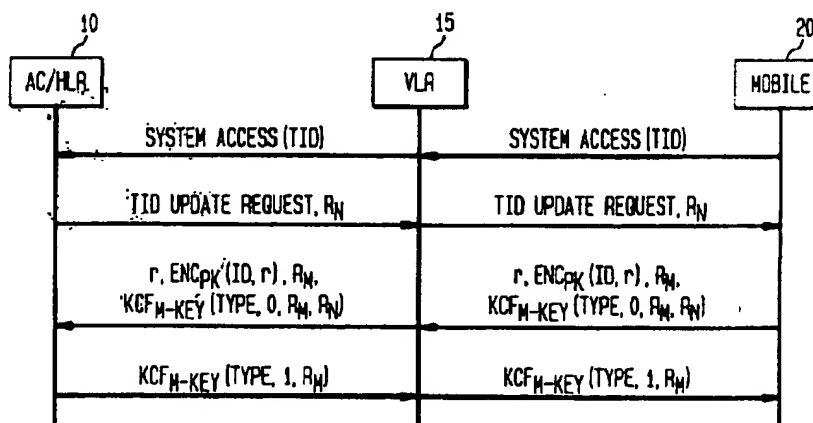
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(54) Method for protecting mobile anonymity

(57) In the method for protecting mobile anonymity, the network sends a temporary mobile identifier (TID) update request to the mobile along with a challenge. In response, the mobile encrypts its permanent ID through public key encryption using the public key of the network, and sends the encryption result to the network. Also, the mobile generates a second challenge, and a first challenge response. The first challenge response is generated by performing a keyed cryptographic function (KCF) on the first and second challenges using a key. The mobile sends the second challenge and the

first challenge response to the network with the encrypted permanent ID. After decrypting the permanent ID, the network accesses the key associated with mobile using the permanent ID. Next, using the key, the network authenticates the mobile using the second challenge and the first challenge response. If authenticated, the network calculated a TID for the mobile using the first and second challenges. The network further generates and sends a second challenge response to the mobile. If the mobile authenticates the network based on the second challenge response, then the mobile calculates the TID in the same manner as did the network.

FIG. 2



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EUROPEAN SEARCH REPORT

Application Number
EP 99 30 6466

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Place of search THE HAGUE		Date of completion of the search 16 November 2000	Examiner Psatha, H
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant; if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons A : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
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The members are as contained in the European Patent Office EDP file on
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